REMARKS/ARGUMENTS

Favorable reconsideration of this application as presently amended and in light of the following discussion is respectfully requested.

Claims 1, 2 and 4-34 are pending in the present application. Claims 1, 9, 13, 14, 19, 30 and 33 are amended by the present amendment without introducing new matter.

In the outstanding Office Action, Claims 1, 2, 4-10, 30 and 31 were rejected under 35 U.S.C. § 103(a) as unpatentable over Hayashi et al. (U.S. Patent 5,754,708, herein "Hayashi") in view of Suzuki (U.S. Patent 5,742,410); Claims 11-13, 16-18, 20, 21, 24, 26-29 and 32-34 were rejected under 35 U.S.C. § 103(a) as unpatentable over Hayashi in view of Sikes et al. (U.S. Patent 6,058,201, herein "Sikes"); Claim 19 was rejected under 35 U.S.C. § 103(a) as unpatentable over the combination of Hayashi and Sikes and further in view of Farrell et al. (U.S. Patent 6,222,642, herein "Farrell"); Claims 22, 23 and 25 were rejected under 35 U.S.C. § 103(a) as unpatentable over the combination of Hayashi and Sikes and further in view of Sakano et al. (U.S. Patent 5,473,444, herein "Sakano"); and Claims 14 and 15 were indicated as allowable if rewritten in independent form.

Applicants thank the Examiner for the indication that Claims 14 and 15 include allowable subject matter.

In light of the several grounds for rejection, Claim 1 is amended to recite, among other things, "... a degree-of-white-background-likeliness detection unit configured to detect a concentration of white pixels in a binary image obtained by binarizing the input image, and to detect a degree of white-background likeliness in respect of a local area of the input image in response to the detected concentration of white pixels ...." Similar changes are made to Claims 9 and 30. Amended Claims 1, 9 and 30 find support at page 40, line 1 to, page 48, line 24 of the specification, and in Figures 34-38, for example. Further, Claims 13, 14, 19 and 33 are amended for clarification. No new matter is added.

Applicants respectfully request the withdrawal of the outstanding rejections for the following reasons.

In a non-limiting example, as set forth in independent Claim 1, a concentration of white pixels is detected in a binary image obtained by binarizing an input image, followed by detecting a degree of white-background likeliness in respect of a local area of the input image in response to the concentration of white pixels. Other independent Claims 9, 11, 24, 27, 30 and 32 include similar features.

Hayashi does not disclose or suggest the claimed degree-of-white-background-likeliness detection unit,[1] and the Office Action relies on Sikes in an attempt to remedy the deficiencies of Hayashi. Applicants respectfully submit that Sikes does not remedy the deficiencies of Hayashi, however, for the following reasons.

The Office Action points to a portion of Sikes[2] to remedy the deficiencies of Hayashi. In particular, the above-noted portion of Sikes appears to be directed to a determination of an amount of light scattering compensation by measuring all pixels in a digitized image with respect to a threshold white value. Applicants respectfully submit that nowhere in the above-noted portion does Sikes disclose or suggest detecting a *concentration* of white pixels. Instead, Sikes teaches detecting white pixels (i.e., pixels measured "with respect to a threshold white value"). Applicants respectfully submit that detecting white pixels is different from detecting a concentration of white pixels.

Moreover, Sikes does not disclose or suggest detecting a degree of white-background likeliness in respect of a local area of an input image. Instead, Sikes teaches determining a degree of whiteness with respect to each image.

Further, Suzuki teaches an edge conversion coefficient calculation circuit. An edge conversion coefficient f_e is obtained by the above-noted circuit, and is used for the edge

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[1] See page 5, lines 19-22, of the Office Action.
[2] See Sikes, column 12, lines 20-27.

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correction of color difference signals (a*b* signals) in the chroma conversion circuit 217.[3]

Applicants respectfully submit that this edge conversion scheme directed to color difference

signals cannot be applied to Hayashi since no such color difference signals is used in

Hayashi. More specifically, Applicants respectfully submit that the substitution of the edge

conversion scheme of Suzuki would require a complete redesign of Hayashi.[4] There is no

evidence that one skilled in the art would be motivated to perform such changes and redesign,

particularly as the benefits of the edge conversion scheme of Suzuki would not provide any

benefits in Hayashi that does not even use color difference signals.[5]

In addition, the Office Action indicates that the element 4b shown in Fig. 1A of

Hayashi corresponds to the claimed edge detection unit, and the gray level judging shown in

Fig. 1B of Hayashi corresponds to the claimed degree-of-white-background-likeliness

detection unit.[6] However, Applicants note that the item 4b relates to the first embodiment,

and the gray level judging relates to the second embodiment. Therefore, they are not used

together.

Applicants also note that the item 4b does not detect a magnitude of an edge. Rather,

it simply detects an edge (i.e., the presence/absence of an edge) for use in subsequent

counting of edge pixels. Further, nowhere in the disclosure of Hayashi does Hayashi teach

the concept of "a magnitude of an edge." The gray level judging of Fig. 1B simply classifies

a gray level into "low," "middle," and "high" levels, and fails to disclose or suggest detecting

a degree of white-background likeliness.

Furthermore, it is respectfully submitted that Farrell and Sakano also do not disclose

or suggest the features recited in independent Claims 1, 9, 11, 24, 27, 30 and 32.

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[3] See Suzuki, column 13, lines 33-40.
[4] See M.P.E.P. 2143.02 and In re Ratti, 123 USPQ 349 (CCPA 1959).
[5] See page 3, lines 14-18, of the Office Action.
[6] See page 2, paragraph 4, of the Office Action.

Accordingly, Applicants respectfully submit that independent Claims 1, 9, 11, 24, 27,

30 and 32 and each of the claims depending therefrom are patentably distinguishable over the

references of record, and request the withdrawal of the outstanding rejections for the reasons

stated above.

Consequently, in light of the prior indication of allowable subject matter, the above

discussion, and in view of the present amendment, Applicants respectfully submit that the

present application is in condition for allowance, and an early action favorable to that effect is

earnestly solicited.

Respectfully submitted,

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